
CXtrace V2.6 Release Notice

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Introduction

This document describes the CXtrace V2.6. Please review this document before reporting problems.

Requirements

This section describes hardware and software requirements.

Hardware requirements

CXtrace V2.6 runs on the Exemplar S and X Class systems.

Software requirements

CXtrace V2.6 requires the following software to be installed:

- Hewlett-Packard Exemplar Fortran V1.1 or newer
- Hewlett-Packard Exemplar C V1.2 or newer
- SPP-UX V5.1 or newer. This includes the Exemplar assembler, linker (ld), and system libraries
- Hewlett-Packard PVM V3.3.11 or newer
- Hewlett-Packard MPI V1.1 or newer
- On systems running SPP-UX V5.1 or later, the subcomplex on which CXtrace runs must be configured so that the maximum amount of shared memory used by PVM or MPI does not exceed the amount of global shared memory allocated for the subcomplex. Using the scm utility, system administrators can configure subcomplex global shared memory. For more information, consult the scm man page.
- With the addition of Exemplar specific performance enhancements, CXtrace executables reference routines in both /usr/lib/cnx_syscall.a and /usr/lib/libail.sl libraries. When you use the CXtrace compilation scripts, these libraries are automatically linked. For more information on using the compilation scripts, refer to the *CXtrace User's Guide*.

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Distribution

The distribution package for CXtrace V2.6 consists of:

- CXtrace V2.6 Release Notice (an ASCII version is available online in `/opt/cxtrace/newconfig/ReleaseNotes/cxtrace2.6`)
- CXtrace User's Guide, Third Edition (B5639-900003)

Directories and files

All CXtrace related files are installed in the base directory `/opt/cxtrace`:

- **bin**—Contains CXtrace's compilation scripts and executable files, including *tally*, *tv*, and *xinstrument*.
- **lib**—Contains CXtrace's library files that must be linked into the compile/link stage, including *libpvmcxtrace.a* and *libmpicxtrace.a*
- **newconfig**—Contains an ASCII version of this release notice and the CXtrace X application default file.
- **share**—Contains CXtrace's man pages.

New features

This section describes changes to CXtrace V2.6:

- **Compilation scripts** — These scripts instrument, compile, and link your MPI or PVM applications. When you use the compilation scripts, the default set of constructs are instrumented and enabled for profiling. The default constructs are all message passing constructs (either MPI or PVM)
- **CXtrace-ar script** aids the building of instrumented libraries for use with CXtrace applications.

For more information, refer to the *CXtrace User's Guide* (B5639-900003).

Known problems

This section describes problems in CXtrace V2.6 that are known at this time. Workarounds for these problems are described.

- **Single-threaded processes** still need either the PVM or MPI libraries, depending on what platform was used during instrumentation.
 - Link in the PVM or MPI libraries
- The instrumentor cannot handle multiple loops that terminate at the same label.
 - Nest CONTINUE statements to correspond with each nested loop.

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- The Fortran instrumentor does not handle parameters or pointers correctly.
- Unable to instrument processes that start the PVM daemon.
 - Remove self-starting code and manually start the PVM daemon.
- Xinstrument may hang, if terminated using window manager events.
 - Exit through the File pull-down menu.

Installation notes

CXtrace V2.6 is part of the Exemplar software distribution that contains SPP-UX V5.1. Refer to the *Exemplar Software Distribution Notice* included with the software distribution for instructions on installing CXtrace V2.6.

If during installation, you run out of disk space on the file system that contains /opt/cxtrace, you may create a directory on another file system and make /opt/cxtrace a symbolic link pointing to the directory on the other file system.

Getting assistance

If you have questions about CXtrace, contact the Hewlett-Packard Convex Technical Assistance Center (TAC). To contact the TAC, use one of the following phone numbers:

- Within the continental U.S., call 1(800)952-0379.
- From Canada, call 1(800)345-2384
- All other locations, contact the nearest sales office.

TAC recommends using the *contact* utility to report a hardware, software, or documentation problem. The *contact* utility is an interactive program that helps the TAC track reports and route them to the personnel most qualified to fix a problem.

After you invoke *contact*, it prompts you for information about the problem. When you finish your report, *contact* sends mail to TAC electronically. The TAC notifies you within 48 hours that your report has been received.

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